

Comments regarding the FCC FNPRM 07-72 of 4/25/07  
Johnson County, KS  
5/17/07

Johnson County, KS public safety organizations are presently using several data connectivity options to link mobile computers in public safety vehicles with their servers. These methods include a private radio data system using 25 KHz data channels, commercial EVDO data service from a wireless carrier, and 802.11 broadband hot spots in selected locations. Each of the three options fills an important role in the process.

The 802.11 and EVDO systems provide much higher throughput than the private data system, but both use low-power short-range towers or access points. When a significant tornado struck the Kansas City area a couple of years ago, wireless phones that still worked well outside the damaged area had limited or no service inside the damage footprint of the tornado. The same will be true of EVDO or 802.11 systems. If the nearby tower or towers serving the impacted area are disabled by the event, coverage is lost and emergency responders are unable to use their mobile computers while in the affected area.

Our private radio data system, a Motorola DataTac system, provides the slowest data transfer but operates very reliably. (The over-the-air data speed of this system is 19.2 kbps, with throughput further reduced by error-correction logic in the signal.) Because this system uses fewer towers, each covering a wide area, it is able to provide coverage far into the damage footprint of an event (such as a tornado) even when the nearby towers or hot spots required by the other two methods are disabled by the event. However, we are limited in the number of mobile units this system can support because of the unavailability of additional 800 MHz public safety 25-KHz data channels in the Kansas City area. We are not able at present to support all our police and fire vehicles on the two-channel system we have in place. At this time police vehicles are using this system and fire / EMS vehicles are using EVDO for connectivity.

We are aware of newer technologies from multiple vendors that offer significantly faster data rates using the same 25-KHz channels and repeaters that cover wide areas. We have great interest in updating this private data system to one with higher throughput and enough channels to support our entire fleet. If the previously-defined wideband data channels in the 700 MHz public safety spectrum are made unavailable to public safety agencies by this proceeding, we will be prevented from meeting this objective unless we aggregate two 12.5-KHz voice channels for each additional data channel needed, thus losing badly-needed voice paths. Previous plans also allowed for

aggregating multiple wideband channels to permit even higher data rates, an option we had planned to pursue. Again, the proposed ruling in this proceeding would prevent us from being able to implement such a solution.

We are watching with great interest the various proposals for nationwide public-safety data systems. We understand the need for maximizing interoperability. But we expect that such a solution will take many years to become available nationwide. We have immediate data needs that we badly need to be able to address in the interim. Also, without any more information than we have at present about the eventual national system, we cannot determine whether it will be feasible for our day-to-day operations. In particular we will need more information about costs, coverage, governance, and availability during the initial hours of a disaster before we can make an informed decision about using such a system routinely.

Furthermore, we believe the eventual national solution is likely to use low-power short-range towers. The problem with relying solely on such systems in the aftermath of a tornado is described above.

We urge the Commission to choose an option that permits locally-owned and locally or regionally controlled wideband data systems in the 700 MHz public safety spectrum.